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United States Government

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Department of Energy

Rocky Flats Office


memorandum

DATE: SEP 12 1990

REPLY TO
ATTN OF: ERD:TTO:8602SUBJECT: Comments on "Selection of Exposure Scenarios, Computer Models, and Data Collection Requirements for Human Health Risk Assessments, Draft 1.0"TO: J.M. Kersh, Associate General Manager
Environmental Restoration and Waste Management
EG&G, Rocky Flats, Inc.

The U.S. Department of Energy has completed review of the document titled "Selection of Exposure Scenarios, Computer Models, and Data Collection Requirements for Human Health Risk Assessments, Draft 1.0". Overall, the document is marginal and certain sections are at best hard to follow. Attached are comments that will need to be addressed.

Please feel free to contact me or have your staff contact Tom Olsen of my staff at extension 2762, or Paul Singh at extension 5921, if you have any questions.


David P. Simonson, Acting Assistant Manager
for Environmental Management

Attachment

cc w/Attachment:
R. Schassburger, DOE/RF
S. Grace, DOE/RF
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DOCUMENT CLASSIFICATION
REVIEW WAIVER PER
CLASSIFICATION OFFICE

ADMIN RECORD

A-SW-001000

Comments on Selection of Exposure Scenarios, Computer Models, and Data Collection Requirements for Human Health Risk Assessments, Draft 1.0

1. Page 6, last bullet:

"Onsite Explorer Discoverer Intruder" should this be just "Onsite Intruder"

2. Page 10, bottom of page:

How does one determine concentration in soil from site contour maps?

3. Page 11, equation:

The "x" used as a multiplication symbol is confusing. It would be better to eliminate this in all equations.

4. Page 23, last bullet:

"The individual consumes all his water from a potable water sources which has been contaminated through air and/or water pathways;" Is this assumption reasonable since all communities surrounding the Rocky Flats Plant have public water supplies which treat water prior to distribution?

5. Page 28:

The criteria as stated is contradictory, example, most of the models discussed are not public domain.

6. Page 30, Section 3.1.1, first paragraph:

This is totally wrong and should be reworded - use DOE or EPA language.

7. Page 33:

There should be no assumptions made about the presence or absence of physical characteristics without evidence to back up the statement.

8. Table 3-1:

There are numerous models that are not described in this document, have all other models been eliminated and if so, through what criteria?

9. Page 43:

The availability of input parameters is subject to site specific field characterization work either already completed or in the process of completion. To say a model is too simplistic is to infer that you have all the data you will ever need to model a site. At RFP there exists limited data for the most part in all areas of the plant site. A complex model can be very misleading if used inappropriately with limited data. I am not sure just what the document is trying to convey at this point.

10. Page 44 under "Fluids and Contaminants", fourth bullet:

Are the decay constants for the organic species readily available?

11. Page 47, second paragraph:

How will discovery of new chemical contaminants which may be more toxic than any existing chemicals be taken into account?

Section 3, surface water models:

There is little description with regard to radiological surface water transport, as well, as chemical transport. Most of the models reviewed are for mass transport and sediment loading, we are not doing analysis on mining activities in watersheds.

Section 3, air quality:

RFP has an air model called TRAC, why is this model not mentioned in the review, it is probably superior to most models and is specific to RFP and surrounding areas?

12. Page 50, last paragraph, first sentence:

Should the buffer zone also be included in the land area?

13. Page 62, last paragraph:

What is "zero-dimensional mixing"?

14. Page 64, Item 8:

"Since this model is presented under Surface Water Runoff Models" is not a sentence and does not make sense.

15. Page 69, first paragraph:

"Soil moisture parameters and reservoir flow balance data are one year." This does not make sense and should be clarified.

16. Page 70:

For the surface water dispersion/dilution models the discussion on only the models which can be used should be given. The selection process and comparison could be made in an Appendix.

17. Page 71, fourth bullet:

Why is this listed? Does the Rocky Flats Plant release any of the precursors?

18. Page 82, Item 2, first sentence:

The word "used" should be replaced with "use".

19. Page 100, second bullet, second sentence:

The word "project" should be "present".

20. Page 104, third paragraph:

This paragraph needs clarification as to what statistical significance is and to what purpose data reduction plays in determining cleanup? If not statistical significance, then what?

last paragraph:

All OUs overlap with respect to contaminants and their boundaries are basically nondistinguishable from one another.

21. Page 106, third paragraph:

0.45mm should be 0.45 micron.

22. Page 111, Sampling Patterns:

How does this compare with what is already in place? Maybe some discussion of present sampling scheme should be discussed.

23. Page 120:

The topic here is eluding DOE, are you now setting DOE policy ? (first paragraph)
This type of interaction is determined in the IAG not here.

24. Page 147, Groundwater, second sentence:

The word "this" should be "these".

Conclusion: This is an extremely hard document to follow. Much too fragmented and the points of argument are not always accurate. A more comprehensive literature search needs to be completed to supplement "expert opinion" that is noted throughout this document.